Spring 5-18-2021

The Happiness Study: Identifying Social and Economic that Make the U.S. Happier

Tatum Garrison
University of San Diego

The Happiness Study: Identifying Social and Economic that Make the U.S. Happier

---

A Thesis
Presented to
The Faculty and the Honors Program
Of the University of San Diego

By
Tatum Garrison
Business Economics
2021

Abstract:

As happiness is essential to overall well-being, understanding factors that affect it will inform policies designed to maximize people's happiness within each state. This will have broad implications for economic research and policy. The wealth and general population income of a state determines an initial level of individual happiness. However, once a level of wealth is achieved, individual happiness does not increase proportionally. This paper examines the relationship of a state's happiness, measured by computing a score based on an individual's health, wellbeing, and work environment, with economic factors such as GDP and median household income, and social factors including inequality indexes and state air quality. The findings suggest that economic indicators, such as GDP and median house value, play the central role in the happiness of states. In addition, the Gini Index of Income Inequality also played a large role and was significantly negatively correlated with a state's overall happiness. Lastly, a general understanding is reached about why this information matters in the realm of economic policy.

I.Introduction

Happiness is something all individuals tend to desire. The idea of happiness can be defined in many ways. People equate happiness to leading a better life. Some say that being happy relates to better health and longer life. Success may come with being happier and thus people may make more income, stay married longer, or give back to the community more frequently. These factors in turn can drive the economy with economic growth therefore allowing a trickling down effect of the impacts of happiness. This can drive people's future income and additionally affect the labor market in its productivity. Happier people can be more motivated to find and succeed in a job driving the unemployment rate down. Thus, making the idea of being happier one that everyone wants to achieve, economists included.

Recently, there has been a myriad of research in understanding how to equate a happiness value within countries, states, and years. Every year the World Happiness Report is published on what countries were deemed to be the happiest and why based. Certain organizations complete yearly studies listing the 50 United States in rankings according to their happiness or well-being scores. These studies are very popular and allow people to perceive the happiest place to live. Happiness scores may come into importance to those who are looking to place a business and looking to hire employees or bring employees with them for another area. Understanding what relates to happiness scores can bring knowledge to a variety of disciplines, economics included.

Studying happiness has become of great interest within economics. Economists have become interested in understanding what makes people happier and how it relates to economic values. Specifically, evaluating whether trends persist within historical data that allow one state to be happier due to higher economic productivity or a higher minimum wage. Additionally, happiness relates to economics in that happier people may be more productive allowing them to make more money and thus drive the economy to greater success.

Many previous studies have been conducted on what this value of happiness is positively or negatively correlated with. Some studies relate it to economic factors or political values. Within the United States happier states may have higher levels of productivity, lower unemployment, and overall greater state success. Happier states may also have higher community participation, lower rates of air pollution, and less poverty.

To develop a great understanding of this idea, it is important to look at parts of the whole picture in regard to what relates to happiness. The two areas of interest in this study and their relationship with happiness are the economic and social facets. Particularly, how economic factors such as income, GDP per capita, minimum wage etc. affect individual's happiness within the 50 United States. Social factors that affect how people live within a state go hand in hand with economic factors as they relate to quality of life and individual's happiness within a state. Factors that affect one's livelihood within a state such as air pollution levels, temperature, inequality, and outdoor recreation. My research will analyze the relationship between happiness scores and economic and social factors within the 50 United States.

II. Literature Review

Studies regarding happiness within regions, countries, and states are very frequent as factors are constantly changing and happiness economics has gained a lot of interest. Specifically, there is a large landscape in understanding what qualities play into happiness/well-being and then how these values are related to factors not included in the index measures. With these measures of happiness further studies have been conducted to understand what factors directly correlate with happiness. With these studies economists can determine what directly affects happiness and what policies can be enacted to further stimulate and increase happiness within the United States. This idea has been explored by a variety of researchers and the *Journal*

of Economic Behavior and Organization had an issue, volume 45 issue 3, dedicated to this topic of happiness in economics alone.

To achieve maximum happiness in states or nations what factors do we look at? Is it the economic factors or other factors that affect one's livelihood, like social factors, or is it both? People want to be happier, yet they have no extreme interest in growth, inequality, employment but these things may play a role in how happy we are (Oswald, 1997).

Subsequent work has extended the idea of this topic on happiness by narrowing into specific subjects such as the large field of happiness and how that relates back to economic indicators such as GDP growth, median housing value and personal income. GDP growth and personal income are in one foundational study that found increased economic growth did not directly affect increased happiness levels (Easterlin, 2015). Consecutive work on these topics found that there was no long-term relationship between happiness and economic growth in both developing and developed countries, while Easterlin noted in the short-term trends may be existent between long and short-term growth but in the long run there is no significant relationship (Easterlin, Angelescu, 2009). Therefore, trends should be examined over a long time when analyzing economic growth and happiness. Median housing value was included in a state level happiness research using a similar framework that will be used within this study. The researchers determined that there were a number of significant common factors within happier states, one being median housing value (Rentfrow, Mellander, and Florida, 2009). The other important economic indicator, personal income is included in most all studies found on happiness as it is the makeup of the theory called the Easterlin Paradox. Richard Eatserlin has completed a lot of work within the field of happiness economics and much of his research was modeled after the happiness-income paradox (Easterlin Paradox). The Easterlin Paradox is used

as a foundational aspect of happiness studies. The Easterlin Paradox is the idea that happiness over time does not continue to grow as income increases, it may at a single point in time but not when trends are examined over time. This idea is echoed in other studies that found that happiness declined even though income was growing (Clark, Flèche, and Senik, 2016). For example, on a state level analysis as they reached higher levels of gross regional product per capita more income did not add to the well-being (Rentfrow, Mellander, and Florida, 2009). Therefore, the Easterlin Paradox is referred to as a foundation for any happiness study.

While there are thousands of social factors within different disciplines that can examined when discussing happiness. Some social factors that have been included within previous happiness research include climate factors, outdoor activities and vacation, social justice and income inequality. Many of these studies have been conducted on a national level.

Few studies within the field of economics have specifically relating climate to happiness. Although within different discipline this has sparked interest. Within one study climate factors were deemed significant to explain differences in well-being (Rehdanz, Maddison 2003). These researchers suggested that people have preferences of temperatures and precipitation levels thus affecting their overall well-being or happiness. Therefore, influencing this current study to include climate factors. In relation to climate, happiness and outdoor activities/recreation and vacations have been studied to see what other external factors affect an individual's happiness. In this specific study, individual tourists were examined to see what outdoor activities sparked increases in happiness. Researchers found that certain outdoor activities may benefit our wellbeing significantly more than other activities, and that there was a positive relationship between the way tourists use nature and well-being (Bimonte, Faralla, 2013). Thus, relating back

to the idea that individual's happiness within a state cannot solely be based on one economic factor but many different factors.

Social justice and income inequality were two factors examined in additional happiness research. The scope of one study looked at the relationship between life satisfaction and social justice in European countries. The researchers determined that social justice is a significant determinant of life satisfaction, or how an individual judges their own life (Di Martino, Prilleltensky, 2019). While this study was done within European nations built on different ideals and political systems this research will look at the United States. The relationship of income inequality, commonly measured by the Gini index of income inequality, and happiness has spurred a lot of research. This index of income inequality (Gini) has been found to be much higher within the United States, and in 2008 the measure of the U.S. income inequality was found to be higher than European nations and Canada (United Nations Development Programme, 2009). Researchers in one study, from 1972 to 2008, found that Americans were happier in years with less income inequality (Oishi, Kesebir, and Diener 2011). The explanation for this was that people lacked fairness and trust when the income inequality index was higher in some years therefore affecting their overall happiness. Another study found similar results that individuals do not like income inequality. The researcher suggesting that trust within institutions of a country play a crucial role in the relationship formation of income inequality and well-being (Ramos, 2013).

No studies in the research used a multi model regression method to look at both the social and economic side of the happiness question. This paper aims to examine the topic of happiness to understand what economic and social factors have a positive or negative effect on happiness within the 50 United States. Using previous literature as a reference many of the independent

factors have been examined independently in their relationship with happiness. Although there was a gap from previous literature in that there was no study that included both and the same independent factors that will be used in this research, some of the past research will cross over. These social and economic factors may affect happiness at great levels as they numerically range from state to state. Similar trends to previous studies may be discovered.

III. Empirical Framework

Data and Descriptive Statistics

Total State Happiness Scores

Total State Happiness Scores is the dependent variable within this study. State level happiness was measured by WalletHub's Happiest States in America, this study was conducted in September 2020. The 50 states were measured across 32 metrics. These metrics included the depression rate, sleep rates, suicide rate, divorce rate and the long-term unemployment rate. To be able to create these happiness sources they were based on three main categories of emotional and physical well-being, work environment, and community and environment. As 2020 was the year of the coronavirus pandemic, the depiction of happiness may not be continuous with previous years data. Insights will be discovered within this year on what mattered during these times in regard to people's happiness within the 50 United States. The overall score was created from a weighted average and thus how the states were ranked from happiest to least happy. The range was between 30 and 70, as seen in figure 1, with Hawaii deemed the happiest state. While Hawaii was deemed the happiest state many others came close and others being on the lower end, this is depicted in figure 2.

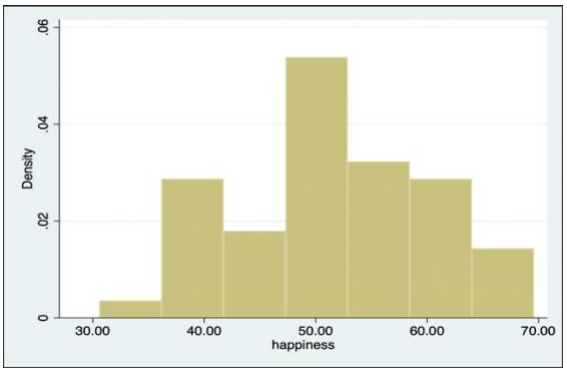
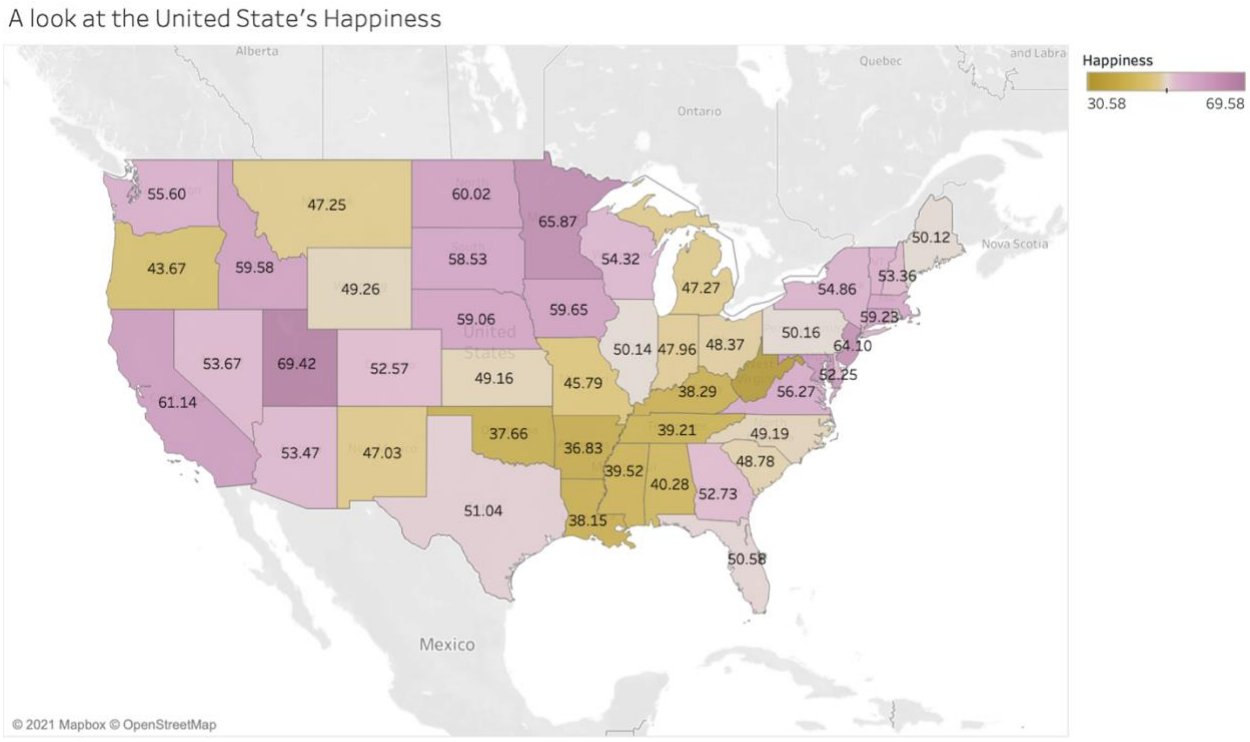


Figure 1: Histogram of Happiness



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Happiness. The marks are labeled by sum of Happiness. Details are shown for State.

Figure 2: A look at the United State's Happiness

Social and Economic Variables

The social variables included within this examination of happiness include air quality, Gini index of income inequality, average temperature, social justice index, and outdoor

recreation. Economic variables included personal income, gross domestic product, median home value, and minimum wage. These variables, their measure and sources are included in Table 1.

Independent Variables	Measure	Source
Personal Income 2020 Q1	This variable measures the amount of personal income that individuals get from wages, tips, or salaries. This is a state level variable and taken from 2020 Q1. The data is from the Bureau of Economic Analysis.	BEA
Real Gross Domestic Product 2020 Q1	Measures each state's gross product adjusted for inflation	BEA
Median Home Value	Measures the average home price within a state	Census.gov
Minimum Wage	Minimum wage paid to employees within the state	Kaggle
Air Quality Index	Measures amount of 4 major air pollutants. These include ground level ozone, particle pollution, carbon monoxide and sulfur dioxide.	World Population Review
Gini Index of Income Inequality	The Gini Index of Income Inequality measures the statistical dispersion to represent the wealth or income inequality of each state. The higher the value the higher the inequality.	PRB
Average Temperature by State	Measured temperatures in each state over 29 years and averaged them	Current Results
Social Justice Index	Measures and creates a score based on the individual factors that represent the distribution of wealth, opportunity, and privilege in each state.	JustSouth Index
Outdoor Recreation	Measures the economic activity of all outdoor recreational activities.	BEA

Table 1: Variables Included in the Data

Descriptive Statistics

Variable	Obvs.	Mean	Std. Dev.	Min	Max
Happiness	50	51.361	8.618	30.58	69.58
Personal Income	50	377603.96	473360.83	35166.6	2703290.1
Minimum Wage	50	8.091	3.497	0	13.5
Median Home Value	50	247216	107539.34	124600	669200
Air Quality	50	42.214	5.262	21.2	51.2
Gini	50	46.448	1.856	42.37	51.37
Average Temperature	50	51.944	8.707	26.6	70.7
Outdoor Recreation	50	4507502.6	5547292.9	615789	29589251
Social Justice Index	50	.598	.088	.351	.742

Table 2: Descriptive Statistics

Empirical Methodology

Multiple nested regression analyses will be used to see if relationships exist between happiness and social and economic variables. The population regression will be estimated with the cross-sectional data.

Income is expected to have a positive statistically significant relationship with happiness as this trend tends to be seen in the short run with happiness. Some of the other economic variables including median home value and minimum wage are expected to have a positive relationship with happiness as they increase. As homes get more expensive it could suggest that the demand to live somewhere is increasing therefore increasing overall state happiness scores. An increase in minimum wage is expected to increase happiness as consumers can buy more items and gain more utility. As GDP increases happiness should also increase as success of the economy may leave individuals employed and making money. Some of the social variables like average temperature and outdoor recreation are expected to have a positive relationship with happiness. The social justice index is expected to have a positive statistically significant relationship. States with citizens more willingness to participate in social issues should increase the overall state's happiness level. GDP and Personal Income were highly correlated thus the models that fit the data best did not include both of the variables. This was expected as personal

income is included in the calculation of a state's GDP. The dropping of personal income has the potential for omitted variable bias.

Multiple nested regression models will be calculated to best understand what social and economic factors affect happiness. This succession of models was created in regard to what previous literature studied thus examining happiness and income's relationship first and moving from there. This had to be taken out as the model progressed as GDP and Personal Income were highly correlated. A stepwise OLS model was used by adding in one variable at a time in order that provided the most explanation of the variation in happiness. For the scope of this study and due to all of Easterlin's previous literature of income and happiness, GDP was determined a variable of interest in relationship with happiness. Minimum wage and median house value were also not seen frequently in previous literature. Additionally, no previous literature used other social variables such as the Gini index of income inequality, average state temperature, and outdoor recreation.

Models:

1) $Happiness = B_0 + B_1 Income + \varepsilon$
2) $Happiness = B_0 + B_1 Income + B_2 lnGDP + \varepsilon$
3) $Happiness = B_0 + B_1 lnGDP + B_2 Gini\ Index\ of\ Income\ Inequality + \varepsilon$
4) $Happiness = B_0 + B_1 lnGDP + B_2 Gini\ Index\ of\ Income\ Inequality + B_3 Minimum\ Wage + \varepsilon$
5) $Happiness = B_0 + B_1 lnGDP + B_2 Gini\ Index\ of\ Income\ Inequality + B_3 Minimum\ Wage + B_4 Median\ Home\ Value + \varepsilon$

Social factors model:

1) $Happiness = B_0 + B_1 Social\ Justice\ Index + B_2 Outdoor\ Recreation + \varepsilon$

IV. **Results**

Multiple nested regression models on cross sectional data will be used to determine if relationships exist between happiness and social and economic factors. The happiness index is determined to be a happiness score for the 50 states. This will be examined by looking at multiple nested models to understand the overall effect on happiness within the states.

The data showed that happiness did have significant relationship with multiple social and economic factors. In order to confirm Easterlin's theory an initial regression was run looking at personal income and happiness. A significant relationship was found between personal income and happiness. A 10,000 dollar increase in personal income is associated with a 0.032 increase in happiness. As this is a single point in time this is not unexpected but if we were to examine the trend over time this should not be the case. For the scope of this model personal income was not used in the further nested models as Personal Income and GDP were understandably highly correlated.

Variable	VIF	1/VIF
GDP	**127.95**	**0.007816**
Personal_I~e	**127.95**	**0.007816**
Mean VIF	**127.95**	

Table 3: GDP and Personal Income VIF's

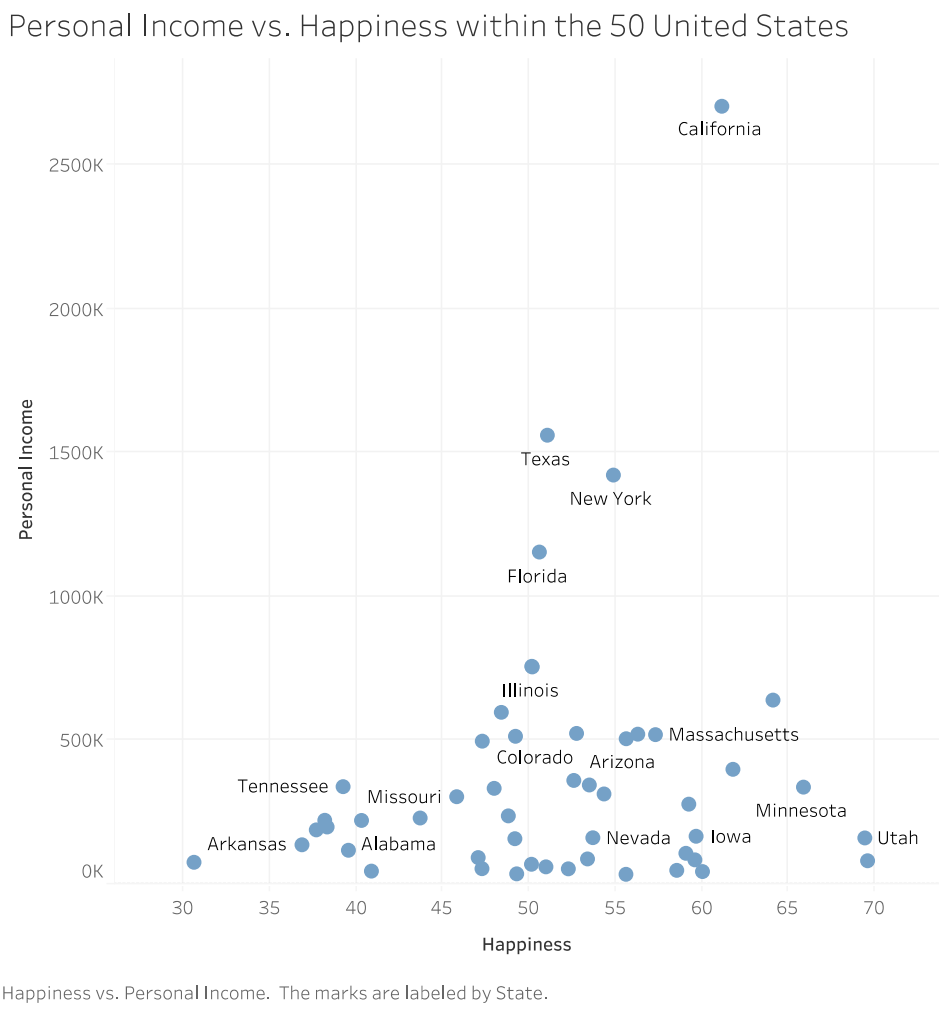


Figure 3: Personal Income vs. Happiness within the 50 United States

GDP was deemed to have a relationship with happiness in equation 3 and 4. Although the impact on happiness is very small due to the large scale of GDP. In equation 3, a 1% increase in GDP is associated with a 3.486 increase in happiness, at a 1% level of significance. While the scale of GDP is much larger than the range of happiness factors it is not surprising that the change in happiness is quite minimal. This item maintains its significance in few of the nested models. While economic growth was found in previous literature to be significant in its relationship with happiness, the independent value of a state's GDP also seemed to share that idea thus suggesting that if the economy within a state is doing well people tend to be happier. A

state's GDP positively influence's a state's happiness value. Although when you don't control for other factors, we see in Figure 3 that higher GDP is not correlated with a happier population.

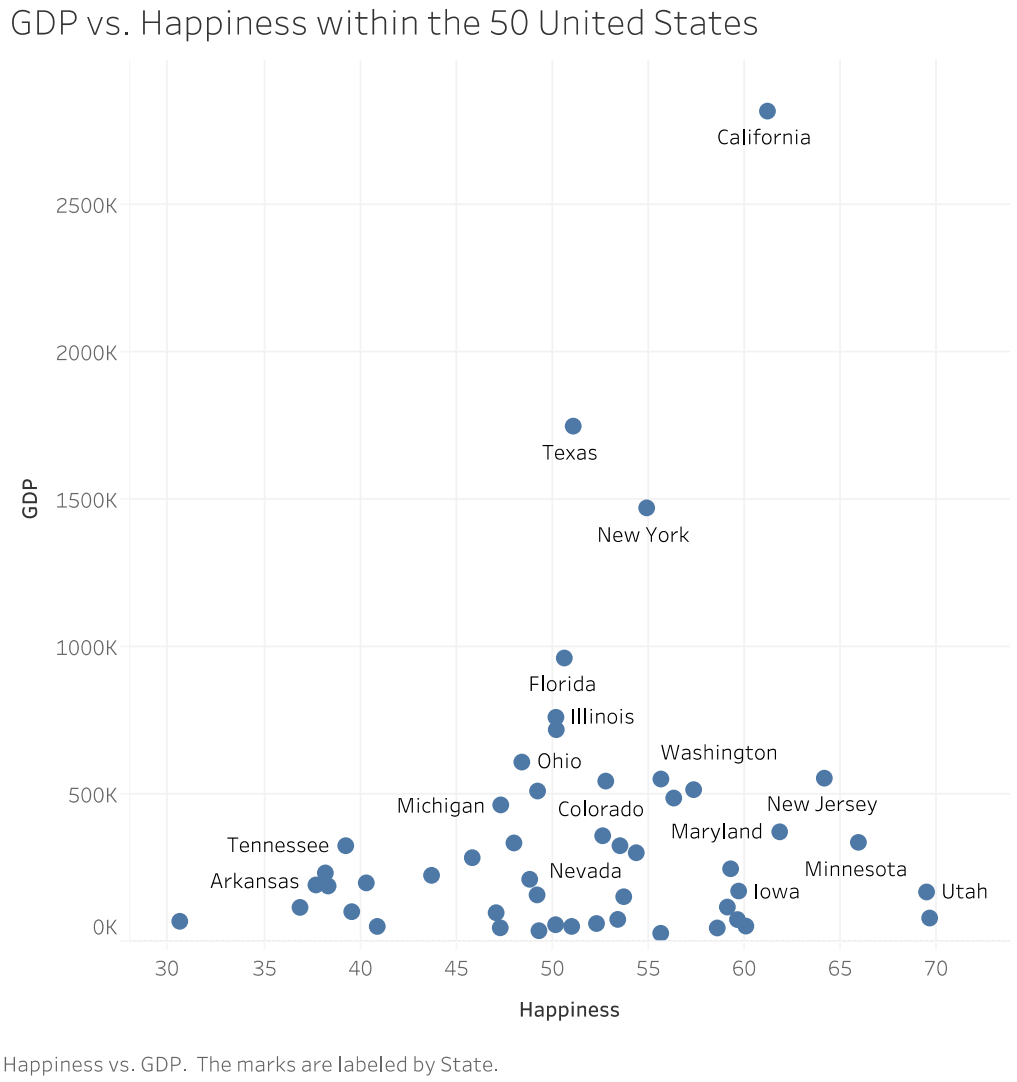


Figure 4: GDP vs. Happiness within the 50 United States

Income inequality was deemed to have a significant relationship in every model it was included within. The Gini index of income inequality had a negative relationship with happiness, thus reiterating what previous studies found that happiness is negatively affected with increased income inequality. A 1 unit increase in the Gini index of income inequality was found to have a 2.029 decrease on happiness, within equation 4, at the 5% level of significance. Supporting the

hypothesis that income inequality would have a negative impact on happiness. Thus, income inequality exerts downward pressure on happiness scores.

The economic value of median home value, attaining a significant value in every equation, was established as significant in its relationship with happiness, having a positive correlation. A 100,000 dollar increase in Median Home Value is associated with a 3.70 increase in happiness, in equation 5, at a 1% level of significance. While this result was unexpected, higher median home values could positively correlate with happiness as people want to live and buy homes in the happiest states. One economic variable of interest, minimum wage was found in equation 4 at a 1% level of significance and have a positive correlation with the variable happiness. Therefore, states with higher minimum wages may tend to have higher levels of happiness.

Equation 5 had the highest adjusted R^2 value, indicating that 41.3% of the variation in Happiness could be explained by variation in GDP, Gini Index of Income Inequality, Minimum Wage, and Median Home value. GDP was insignificant in this model, although the Gini Index of Income inequality and median home value attained significant values. Although equation 4 also does a good job of explaining what affects happiness with 3 significant variables and 26.5% of the variation in happiness being explained. Both of these models and the others allow an understanding of what affects state level happiness.

	(1) eq1	(2) eq2	(3) eq3	(4) eq4	(5) eq5	(6) eq6	(7) eq7	(8) eq8	(9) eq9
Personal Income	0.00000323**	0.00000433*							
	(0.031)	(0.097)							
ln(GDP)		-0.593.	3.486***	2.760**	1.924*	1.774	1.835	2.290	2.285
		(0.707)	(0.007)	(0.057)	(0.108)	(0.407)	(0.112)	(0.125)	(0.127)
Gini Index of Income Inequality			-2.430**	-2.029**	-1.730**	-1.766***	-1.673*	-1.639**	-1.665**
			(0.008)	(0.023)	(0.028)	(0.018)	(0.020)	(0.025)	(0.046)
Minimum Wage				0.858***	0.318	0.331	0.268	0.288	0.299
				(0.001)	(0.219)	(0.201)	(0.447)	(0.430)	(0.403)
Median Home Value					0.0000370***.	0.0000390***.	0.0000401***.	0.0000413***	0.0000416***
					(0.000)	(0.000)	(0.000)	(0.000)	(0.002)
Air Quality						0.105	0.105	0.0983	0.0992
						(0.685)	(0.685)	(0.711)	(0.708)
Average Temp							-0.050	-0.0440	-0.049
							(0.773)	(0.805)	(0.827)
Outdoor Rec								-0.000000130	-0.000000131
								(0.591)	(0.596)
Social Justice									-1.529
									(0.940)
_cons	50.14***	57.00***	121.5***	104.8***	96.36***	94.88***	92.64***	85.57**	87.83*
	(0.000)	(0.003)	(0.001)	(0.003)	(0.003)	(0.004)	(0.003)	(0.022)	(0.099)
N	50	50	50	50	50	50	50	50	50
adj. R-sq	0.011	-0.008	0.161	0.265	0.413	0.402	0.390	0.378	0.363

p-values in parentheses
* p<0.10, ** p<0.05, *** p<0.01

Table 4: Nested Models Regression Results

Social factors such as the social justice index and outdoor recreation were significant, when included in a separate linear regression. When other economic factors were added the social justice index and outdoor recreation declined in significance as seen in table 4. Both having a positive correlation with happiness. A 1 unit increase in the social justice index is associated with a 38.095 increase in happiness. This was expected as with the current social awareness states with higher social justice indexes and less inequality were expected to have overall greater levels of happiness.

	(1) eq1
Air Quality	-0.191 (0.400)
Social Justice Index	38.09*** (0.007)
Outdoor Recreation	0.000000406* (0.054)
_cons	34.78** (0.019)
N	50
adj. R-sq	0.170

p-values in parentheses
* p<0.10, ** p<0.05, *** p<0.01

Table 5: Social Variables Linear Regression

V. Conclusions

This study concludes that the economic indicators of GDP, Median House Value, and Minimum Wage all have a significant relationship with happiness. In addition, the social factors of the Gini Index of Income Inequality, the social justice index, and outdoor recreation all have significant relationships with happiness. Thus, suggesting that both economic and social factors which affect a state's happiness. Therefore, states should focus on increasing happiness levels by looking at altering these factors using policies. If states are happier that can lead to individuals leading longer and more productive lives. As one of the most established nations in the world having even happier people can contribute to overall greater success and fulfilling lives for every American citizen.

Income inequality greatly impacted happiness factors in comparison to the other factors and is something that states could focus on independently. Further research could analyze what economic policies can directly reduce this variable of income inequality and how that would in turn relate to happiness.

One thing to note about this study was that the happiness factors were taken from 2020 the year of the coronavirus pandemic, which affected states in varied ways and thus, could have influenced these results. Further analysis could explore this topic upon multiple years and see trends that exists between what impacts happiness over time.

Although to most individual's being happy is something that we all search for and make life decisions based on that idea. Although is this what those in power positions also have in play for us. Happiness although objective to individuals is a complicated idea to lawmakers and politicians. Although the significant factors discussed within this impact state's happiness levels will policy makers acknowledge this? Further research is needed to understand if happiness of individuals is at the forefront of decisions when the newest taxes, bills and laws are passed.

VI. Happiness Matters

Should economists study happiness? Put simply, yes. Economists should study happiness as happiness is an indicator of individual-preferences and overall wellbeing. Individual's happiness could affect other economic outcomes and indicators. Thus, it should be examined in its' relationship with economic factors. Happiness could be used in addition to other economic factors as a way to understand how the economy is doing.

An individual's level of happiness may have effects on the labor market and the overall nation's productivity. Happiness may affect an individual's willingness to look for a job and how long they stay unemployed. One study found that unemployment had a significant negative impact on an individual's happiness (Ritzen, 2019). Therefore, negatively impacting the labor market. Future research should be conducted in analyzing the relationship of happiness and unemployment as this could provide more insight into best policy recommendations. In addition, a nation's productivity could be affected by the level of happiness individuals have. If relationships of happiness and socioeconomic indicators can be understood, this could lead to less unemployment and a positive push on the labor market. Studies have found that when people are happier in their life, they tend to be much more efficient and productive. One study found that happy workers are 13% more productive (Bellet, De Neve, and Ward, 2019). More efficient employees could lead to better decisions being made and lead a company to more success. Happier, more productive employees are less likely to be unemployed and have higher wages. Accordingly, positively impacting themselves, their income and a country's overall economic success. More productive employees lead to competitive profitable companies, this in turn drives the economy in a positive direction. While examining ways to stimulate the economy, it is also important to understand how utility assessments impact an individual's economic decisions.

Happiness can be seen as a part of utility or as an overlapping concept and thus, happiness research allows economists a better understanding of consumer behavior. Utility is the satisfaction humans receives from consuming or purchasing a good or service. While utility has most frequently focused on understanding the satisfaction of goods and services, happiness can affect well-being which can determine the satisfaction received by these goods and services. In this way, happiness can be seen as a factor within utilitarian rationality. Understanding utility is

important, as it allows economists to understand what consumer demand will be, explain consumer choices, and how that shapes our economy. One researcher suggests that the idea of utility was created in an economy of scarcity and now happiness used as a scientific subject for a prosperous society (Kirsh, 2017). Therefore, happiness research aids the new understanding of consumer utility in our prosperous society.

Happiness research leads to a better overall understanding of our economy and what policies should be recommended to maximize happiness and economic progress. With every policy recommendation 'such as increasing minimum wage to increase happiness' it needs to be understood that tradeoffs exist (Frey, Stutzer, 2002). For example, if we want to lower unemployment, any policies that are introduced could lead to increased inflation or taxes. However, we may be willing to accept these tradeoffs because a happier nation may lead to more benefits than not introducing the policy. With that in mind, previous research reminds us that in most nations the public policy is lead and biased by the economic and political interests of groups (Woll, 1974). While self-reporting of happiness scores used in research may be objective, they can still provide significant understanding of their relationship with economic and social indicators. Individual happiness considerations are important and should be addressed when crafting policy.

References

Bimonte, Salvatore, Faralla, Valeria. 2015. “Happiness and Outdoor Vacations Appreciative versus Consumptive Tourists”. *Journal of Travel Research*, 54(2) 179-192.

Bellet, Clement, De Neve, Jan-Emmanuel, Ward, George. 2020. *Saïd Business School*.

Clark, Andrew E, Flèche, Sarah, and Senik, Claudia. 2016. “Economic Growth Evens out Happiness: Evidence from Six Surveys.” Rev Income Wealth, 62(3): 405-419.

Di Martino, Prilleltensky, Isaac. 2019. “Happiness as fairness: The relationship between national life satisfaction and social justice in EU countries”. *Journal of Community Psychology*. 2020; 48:1977-2012.

Easterlin, Richard A., Angelescu, Laura. 2009. “Happiness and Growth the World Over: Time Series Evidence on the Happiness-Income Paradox. *Institute of Labor Economics,* 4060 (March): 1-29.

Easterlin, Richard A. 2015. “Happiness and Economic Growth- The Evidence.” Global Handbook of Quality of Life, edited by Wolfgang Glatzer et al., 283-300. Springer Science + Business Media Dordrecht.

Frey, Bruno, Stutzer, Alois. 2001. “What Can Economists Learn From Happiness Research?”. *Journal of Economic Literature*, 80.

Florida, Richard, Mellander, Charlotta, and Rentfrow, Peter J. 2011.“The Happiness of Cities”. *Regional Studies*, 47(4): 613-627.

Kirsh, Yoram. 2017. “Utility and Happiness in a Prosperous Society”. *OUI- Institute for Policy Analysis Working paper series*, 37.

Oishi, Shigehiro, Kesebir, Selin, Diener, Ed. 2011. “Income Inequality and Happiness”. *Psychological Science*, 22(9): 1095-1100.

Oswald, Andrew J. 1997. “Happiness and Economic Performance”. *The Economic Journal*, 107(November), 1815-1831.

Piekalkiewicz, Marcin. 2017. “Who do economists study happiness?” *The Economic and Labour Relations Review*, 28(3) : 361-377.

Ramos, Xavier. 2014. “Inequality and Happiness”. *Journal of Economic Surveys*, 28(5): 1016-1027.

Rentfrow, Peter J, Mellander, Charlotta, Florida, Richard. 2009. “Happy States of America:A

state-level analysis of psychological, economic, and social well-being." *Journal of Research in Personality*, no 43 (August): 1073-1082.

Rehdanz, Katrin, Maddison, David. 2005. "Climate and happiness". *Ecological Economies*, no 52: 111-125.

Ritzen, Jo. 2019. "Happiness as a guide to labor market policy". *IZA World of Labor*.

United Nations Devlopment Programme. (2009). "Human development report 2009 Overcoming barriers: Human mobility and development"

Woll, P. (1974). *Public policy*. Lanham, MD: University Press of America.